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Good morning Mr. Chairman, Congressman Costello, and distinguished Members of the Subcommittee. I am pleased to have the opportunity to appear before you today on behalf of the Transportation Security Administration (TSA) to provide you with an update on our Electronic Baggage Screening Program.

As you know, TSA is responsible for screening all checked baggage carried on TSA-regulated commercial aviation flights in the United States. This requirement also includes the procurement, installation, and maintenance of the explosives detection systems necessary to screen that checked baggage. Baggage screening has been TSA's responsibility since December 2002.

Since the initial deployment of the TSA checked baggage system, TSA has pushed hard for innovation and investment intended to dramatically improve the system. Today, 51 airports are either operational or deploying some form of advanced in-line baggage screening system. Work at the nine airports covered by letters of intent is continuing. Additionally, TSA has certified two new explosives detection systems, and is testing additional systems that, if certified, will provide additional capabilities. We continue to search for answers outside the box and ways to better utilize existing technology, and we work in partnership with airports and airlines to address pressing needs, take advantage of special opportunities, and develop innovative, cost-effective solutions appropriate for unique operating circumstances. We have learned valuable lessons in the last three years about the operational nature of advanced in-line explosives screening, and we have adapted and adjusted. The systems we deploy today are significantly more efficient than the systems initially deployed, and the systems we deploy tomorrow will be even better.

Current Technology

TSA uses two different technologies to screen checked baggage for explosives. The first is the automated Explosives Detection System (EDS), which uses computer-aided tomography X-rays adapted from medical technology. The EDS recognizes the characteristic signatures of threat explosives, and alerts the operator to the presence of a

potential threat. Because EDS has a higher throughput than Explosives Trace Detection equipment, it is the preferred method of baggage screening. While we continue to rely on the judgment of trained operators to resolve alarms, EDS can clear the vast majority of the baggage without operator intervention. We have deployed over 1,500 EDS units, from three different manufacturers, at more than 100 airports throughout the United States.

The other technology used for checked baggage screening is explosives trace detection (ETD) equipment. ETD systems use chemical analysis to identify the potential presence of explosives. When using an ETD, samples are taken by rubbing the bag with a special swab, and that swab is then analyzed to determine if any traces of explosives are present. ETD can be used for both primary screening, as well as secondary screening to resolve alarms from an EDS unit. Currently, TSA has deployed over 6,500 ETD systems to 448 airports nationwide. Because the ETD requires that a sample be retrieved from the item to be screened, it is labor intensive. Additionally, the throughput capacity for ETD is considerably less than that of EDS, averaging 37 bags per hour per screener. TSA continually evaluates the throughput requirements at those airports using only ETD solutions to determine if operational and economic conditions may warrant substitution of ETDs with EDS technology.

Ongoing Technological Research

TSA continues to seek the best technology solutions to accomplish the critical task of screening checked baggage for explosives. Continued development of this technology has yielded incremental performance improvements, including lower false alarm rates, superior image quality, improved performance reliability, and improved throughput capabilities. Development of both new equipment and upgrades to existing equipment is ongoing and yielding positive results.

TSA certified two EDS products in 2005. Both of the products were results of TSA's research and development efforts under the Phoenix project, our research initiative for short term solutions deliverable within three to five years. One of these products is a new EDS unit, and the other an upgrade to existing technology. The Reveal CT-80 is the new, smaller EDS unit and the Analogic 6400 is an upgrade. These technology products provide additional options for TSA to use when assessing optimal screening solutions to meet the variety of airport needs. The Reveal CT-80, a new EDS unit, takes up approximately 30% less space than comparable EDS units currently deployed. While the throughput capacity of this unit is lower than the larger EDS units by approximately 50%, it offers an option for smaller airports reliant on ETD for primary screening. TSA is currently deploying the Reveal unit to several airports and is continually assessing all airports for baggage screening requirements that can be met by the Reveal CT-80. The Analogic 6400 is an upgrade to the L3 6000 EDS machines we have currently deployed, with improved image quality for alarm resolution, increased throughput capacity, and improved performance reliability.

Research into both short and long term solutions continues. Several vendors are developing equipment upgrades to increase the lifespan and efficiency of our current equipment. Our long term development strategy places an emphasis on developing EDS technologies that can operate at up to 900 bags per hour and employ revolutionary threat detection concepts to lower false alarm rates. We would deploy these machines where appropriate and consistent with the Electronic Baggage Screening Program Strategic Plan. Laboratory results thus far indicate that these are achievable goals.

Funding for EDS

TSA continues to take action on several fronts to ensure that optimal, sufficient screening solutions are provided to airports. Through eight Letters of Intent (LOIs) TSA has collaborated closely with stakeholders at nine airports to develop, design, and install advanced in-line baggage screening systems. Our funding commitments to the nine LOI airports run through the end of FY 2007 completing a federal investment of almost $1 billion for facility modifications. Furthermore, we have taken equipment deployment, redeployment, and relocation actions to increase screening capacity, reduce worker injuries, and increase screening efficiency at airports experiencing problems. Finally, when airport operators or tenants are in a position to fund a significant portion of the expense necessary to build an in-line system, either during new construction or renovation, TSA has been able to offer financial assistance through the use of Other Transactional Agreements (OTAs) for smaller projects. Under these efforts, 51 airports are either operational or deploying some type of in-line baggage screening system on a whole airport or terminal basis. In all cases, in addition to helping these airports meet screening capacity requirements, these airports have provided valuable lessons on how to develop and install advanced in-line screening.

Strategic Planning Framework

We have recently completed a Strategic Planning Framework for the Electronic Baggage Screening Program (EBSP) that was delivered to the Congress in February 2006 and has already begun to influence our investment and deployment decisions. This framework details TSA's long-term planning philosophy for the development and implementation of optimal baggage screening solutions at the nation's top 250 airports in terms of projected passenger growth. The goals of the plan are straightforward: to reduce total lifecycle costs associated with baggage screening by deploying optimized screening solutions customized to particular airport needs; to expand the amount of baggage that can be screened through the use of EDS technology; to develop and publish planning and design guidelines for in-line screening solutions fully reflecting lessons learned; to accelerate and leverage next generation screening technology matched to best practice designs; and to work actively with stakeholders to collaboratively manage and oversee the design of optimally-scaled screening systems.

Under this framework, TSA has prioritized airports based upon projected passenger growth and estimates of peak capacity needs. Using these peak capacity needs estimates, it is possible to make a general determination of the optimal screening solution fit for

each airport, taking into account reasonable assumptions of developments in EDS equipment. These estimates have largely been completed, although they must be continually updated to reflect current operational conditions. Use of these estimates is beginning to provide flexibility to deploy optimized solutions to airports based upon priority, with the understanding that changes in operational conditions as well as increased stakeholder participation at a particular airport will alter the priority listing. Increased stakeholder participation at a particular airport may present cost savings to the government and will require flexibility as these efforts could assist particular airports in achieving the optimal solution earlier than the priority model predicts.

Furthermore, the Strategic Plan emphasizes the refurbishment and redeployment of equipment from optimized large airports for use in implementing optimal screening systems at smaller airports. Equipment will be utilized to the fullest extent possible, with future technologies replacing existing equipment when warranted.

The Strategic Plan is also intended to address concerns over total system lifecycle costs for the baggage screening system. By systematically moving to replace screening systems with optimized systems over time, long term lifecycle costs are expected to level, instead of an anticipated spike in equipment replacement costs every five to seven years, as would take place without significant redesign efforts now.

Investment Study

As the costs related to the installation of advanced in-line and optimized baggage screening systems are high, a large component of the Strategic Plan is a specialized study on alternative financing solutions. This cost sharing and investment study, required by the Intelligence Reform and Terrorism Prevention Act of 2004 (P.L. 108-458), will be completed in 2006. Through this study, TSA has been working with aviation industry stakeholders to develop a cost-sharing formula and innovative financing solutions for the Electronic Baggage Screening Program. We anticipate that the initial results from the cost-share study will be available later this year.

Aviation Security Capital Fund

As this Subcommittee was instrumental in the creation of the Aviation Security Capital Fund as part of the Vision 100—Century of Aviation Reauthorization Act (P.L. 108-176), you should be aware that its initial authorization expires in fiscal year 2007. The Fund provides that the first $250 million collected in passenger security fees is used to fund airport security improvement projects. We support a three-year extension of the Fund through fiscal year 2010 with a proviso that the allocation requirements contained in the fund, and which are not specifically tied to aviation security needs, are eliminated.

Conclusion

TSA's mission is to protect the Nation's transportation systems while facilitating the movement of people and commerce. The Electronic Baggage Screening Program is a

vital piece of our aviation security network. TSA's planned investments in future technology and advanced design will help to increase security and enhance efficiency of our screening efforts.

Thank you again for the opportunity to testify today. I will be pleased to respond to questions.